nonemergency procedures (15% valves, 83% CABG) were performed at 3 hospitals. A multi-faceted system employed allopurinol, strict but simple myocardial protection, steroids, high perfusion pressure bypass, attention to aortic plaque, fluid restriction, surgical flexibility, and efficiency in postoperative management. A unique technique of mammary artery preparation and testing maximized cardiac reperfusion in CABG.

Median LOS was 5 days, with 37% discharged in ≤4 days, 18% in ≤3 days, while 4.8% were discharged in ≤2 days. In octogenarians, the median LOS was 6 days, with 25% discharged in ≤3 days. Similarly, discharges occurred in ≤4 days in 38% of pts with EF ≤35%. Only 14% had atrial fibrillation, which was treated with oral agents to expedite ambulation. Infection rate was 2.4%. Strokes occurred in 1.4% and perioperative infarction in 0.9%. Intubation beyond 24 hours was needed in only 3.3%. No inotropic support was required in 48%, only 2.9% needed IABP, and 74% of pts were complication free.

Application of this enhanced recovery protocol minimizes perioperative cardiopulmonary and cerebral dysfunction. The benefits appear to be independent of age, pre-operative cardiopulmonary status, and surgical institution.

1170-43 Diastolic Dysfunction Post Coronary Artery Bypass Grafting: A Consistent Finding of Clinical Relevance

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Background: We have previously reported that diastolic dysfunction occurs frequently in the immediate period post CABG. The present study aimed to determine if the impairment of diastolic function persists into the postoperative period and is, thus, more clinically relevant.

Methods: Patients in sinus rhythm undergoing isolated CABG were eligible. Transesophageal echocardiography was used to measure left ventricular (LV) end-diastolic area (EDAREA) at the mid-papillary muscle level. Compliance was assessed using simultaneous pulmonary capillary wedge pressure (PCWP) measurements. Data were collected preoperatively and at 1 hour and 3 hours after arrival to the ICU. Careful comparisons were made at comparable loading conditions (PCWP within 2 mmHg).

Results: Seven patients conformed to the rigid hemodynamic criteria required for comparison at each stage. No new wall motion abnormalities occurred. Without exception, there was a decrease in LV compliance in each patient that persisted at 3 hours:

	Baseline	1 hour	3 hour	p value
EDAREA (cm^2)	14 ± 1	10 ± 0.3	10 ± 1	0.00035
PCWP (mmHg)	11 ± 2	12 ± 1	11 ± 2	NS
MAP (mmHg)	81 ± 12	80 ± 17	80 ± 14	NS

Conclusion: Diastolic dysfunction following CABG persists for at least 3 hours into the ICU stay and should be considered carefully in the hemodynamic management of these patients. The PCWP alone does not adequately reflect the volume status and effective preload of the left ventricle.

1170-44 Mortality After Coronary Bypass Surgery in Relation to Preoperative Psychosocial Factors and Physical Activity

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Background: Psychosocial factors and physical activity may influence the development of coronary disease. We aimed to study whether preoperative psychosocial factors, personality profile and the level of physical activity had impact on mortality after coronary artery bypass surgery (CABG).

Methods: Consecutive patients (n = 2000) who underwent CABG at Sahlgrenska University Hospital received a questionnaire regarding various psychosocial factors, physical activity and personality profile according to Jenkins (type A or B personality) prior to a diagnostic angiogram. The response rate was 63%.

Results: Mortality 5 years after CABG was not related to the subjective level of stress, satisfaction in the life situation or the professional situation, educational level, type A personality, physical activity and demands at work, or educational level. At 5 years, patients with a domestic partner prior to CABG had a better survival that divorced or widowed patients (p = 0.01). A more physically active lifestyle at leisure was associated with lower mortality (p < 0.05) as was the ability to maintain full-time occupation (p = 0.04). After adjustment for differences in concomitant diseases and age only patients who were married or living together still had a better outcome than patients who were living alone (p = 0.03).

Conclusions: Patients who are living with a domestic partner prior to CABG have a significantly lower 5-year mortality, than patients who are living alone. Personality profile and other psychosocial factors are not related to outcome in our study. Differences related to lesser physical activity and full-time employment may be explained by preoperative differences in age and concomitant diseases.

1170-45 Endoscopic Vein Harvest for Coronary Artery Bypass Surgery: Technique and Outcomes

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Background: The greater saphenous vein is a common conduit for coronary revascularizations. Traditional harvest utilizes long incision(s) which can lead to significant morbidities. A minimally invasive technique has been developed which allows harvest of much of the saphenous with one small incision and fewer morbidities.

Methods: Our technique and outcomes on 111 patients with minimally invasive harvest (EVH) is presented. Comparisons are made to a retrospective group at the same hospital and to a smaller (n = 28) prospective group at other hospitals by the same team.

Results: EVH has evolved to one above knee incision of 3 cm length allowing harvest of 35 cm of vein. Harvests were longer for EVH, showed a learning curve and appeared to reach a base line of 35 minutes. Incision closure times were less for the EVH group. Total skin to skin operating times for the entire cardiovascular procedure did not differ between the groups. In relatively homogeneous populations, leg infection rates did not differ but other morbidities were less for the EVH patients. Hospital readmissions for leg wound care were low in both groups although the number of office visits required for leg care was higher for traditional patients. Pain perception by the patients was much less for the EVH and remained lower for up to six weeks. Hospital charges did not differ among the groups.

Conclusions: Although EVH is a relatively new procedure, it is safe, effective, less painful for the patient, carries fewer morbidities and is cost efficient

1170-46 Long-term Survival (up to 21 Years) After Coronary Artery Bypass Surgery: Importance of Previous Surgery for Peripheral Vascular Disease

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Background: Peripheral Vascular Disease (PVD) is known to be an independant risk factor for death after Coronary Artery Bypass Surgery (CABS). The purpose of this study is to compare the mortality and the cause of mortality after CABS of 3 groups of patients: without PVD (PVD−), with known PVD without prior vascular surgery (PVD+) and with PVD and Prior Surgery for peripheral vascular disease (PVD PS).

Methods: From 1976 to 1995, 2045 patients were operated of CABS by the same surgical team in our institution. The absence (PVD−) or the presence of PVD and its type was clinically assessed. For all the patients clinical follow-up (FU) was obtained.

Results: With a mean FU of 10.0 ± 4.6 years (1 to 21), we observe a significant difference in mortality between the 3 groups, with the highest value for PVD PS, corresponding to the more diseased patients.

	PVD−	PVD+	PVD PS	p
N patients	1878	27	40	
Age (m ± SD)	61 ± 9	63 ± 10	62 ± 10	0.2243
% mortality	19.9%	28.3%	45.0%	0.0001

By multivariate analysis, type of PVD remains strongly correlated with long term mortality (p = 0.0001).

Conclusions: PVD is a real and important risk factor for long term mortality after CABS, especially in patients with prior vascular surgery.